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K.F. ROSS P.C.				
5683 RIVERDALE AVENUE				
SUITE 203 BOX 900				
BRONX, NY 10471-0900				
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LI GUANG W				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/512,018

Applicant(s)

COPPOLA ET AL.

Examiner

GUANG LI

Art Unit

2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment date 10/01/2008
2. Claims 20-38 are presented for examination.

Request for Continued Examination

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/01/2008 has been entered.

Response to Arguments

4. Applicant's arguments with respect to claims 21-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claim 20 is objected to because of the following informalities:
Claim 20 line 20, it is suggested that “**such that**” be changed to “configured to provide” for the purpose of clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 23-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "A system comprising a set of internetworked Content delivery network..." that comprises interface modules is implemented in the software module. Software module which direct to the **software per se**. It's directed to the program itself, not a process occurring as a result of executing the program, a machine programmed to operate in accordance with the program not a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality. It's also clearly not directed to a composition of matter. Therefore, it's non-statutory under 35 USC 101.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 20 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 20 line 14, Claim 23 line 12 and Claim 26 line 14 disclose "caches that contain them" is vague and indefinite. It is unclear them refers to, whether refers to the content-related data and the content or not.

11. Claim 20 line 19, Claim 23 line 18 and Claim 26 line 26, disclose "Domain Name Server that is different from the interface component" is vague and indefinite what is different from. Whether different refers to transferring routing data obtained by processing different from the access the contents of the network or different DNS.

12. Claim 36, regarding the phrase "contents may be exchanged" in lines 7 and 9, it is unclear if the feature following the phrase "**may be**" is an required feature of the invention since the phrase "**may be**" makes optional but does not require the feature.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 20-21, 23-24, 26-28, 32-35 and 37-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Swildens et al. (US 2002/0052942 A1).

15. Regarding claim 20, Swildens teaches a method for implementing internetworking of a set of Content Delivery Networks provided with

respective caches,

respective Directory Name Service or Domain Name Servers,

respective content distribution systems to respective clients, and

interface components each susceptible of being associated with a respective network in the set of networks and co-operating with at least one similar interface component associated with another network in the set of networks, the method comprising the steps of:

collecting in the interface components content-related data related to the association of the contents and the caches that contain them (collecting delivery nodes information by point of presence server for Universal delivery network "Customer.speedera.net is mapped to a collection of delivery nodes represented by point of presence servers, i.e., POPs 103, 104. As

merely an example, a method for using such a UDN is provided below” see Swildens:

¶[0038];¶[0056]); and

transferring routing data obtained by processing the content-related data from at least one of the interface components to the Directory Name Service or Domain Name Server of the respective network (exchanging service metric information for the servers in the universal delivery network to make its routing path “A ServiceProbe determines service metric information for servers in the UDN and reports them to the DNS server. Service metrics are one of the decision criteria used by the DNS to make its routing determinations” see Swildens:

¶[0052]) so as to update tables of the Directory Name Server or Domain Name Server (periodic checking the caches to see whether a piece of content is update if it the update the caches in the network and update the DNS “The periodic checking is a common feature of caches but if a piece of content is updated, the old content may be invalidated and the new content published to all the caches in the network. The present CDN service makes this purging possible with a cache control utility that allows you to invalidate a single object, a content directory, or an entire site contained in the caches” see Swildens: [0091]) that is different from the interface component such that access by the client of the respective network to the contents of the networks in the set of CDN is implemented through the Directory Name Service or Domain Name Server of the network (Speedera DNS server is the component that able to collecting and processing the requests and direct them to the closest cache which are different from the DNS translation and update the DNS servers “The Speedera DNS server (SPD) is the core component of the Speedera GTM solution and provides load balancing across the servers distributed all over the Internet. The SPD acts as the traffic cop for the entire network. It handles the DNS requests from the

clients, resolving hostnames to IP addresses” and “At various intervals, the ServiceProbe sends an update to all DnsServers in the Speedera Network using the Speedera SERVP protocol and writes the update to a log file” see Swildens: ¶[0214]; ¶[0449]).

16. Regarding claim 21, Swildens teaches the method defined in claim 20 wherein the following steps are performed by at least one of the interface components:

receiving data on the state of the caches of the contents of the respective network (current stats of each resource and availability “It contains a mapping of where resources (grouped by hostnames) have been allocated as well as the current state of each resource and their availability to each client. It receives the static information (the mappings) from the configuration file and the dynamic information (resource availability) from the probes” see Swildens: ¶[0047]),

determining whether the contents require an updating or not (periodic checking the caches to see whether there is new content “The periodic checking is a common feature of caches but if a piece of content is updated, the old content may be invalidated and the new content published to all the caches in the network. The present CDN service makes this purging possible with a cache control utility that allows you to invalidate a single object, a content directory, or an entire site contained in the caches” see Swildens: [0091]), and

managing the updating by performing at least one step in the following group comprising:

editing the respective database,

editing the respective Directory Name Service tables (synchronize with a group of DNS server “This proxy ability combined with algorithms to divide client latency and persistence

information across a group of DNS servers greatly reduces the problems associated with WAN replication and synchronization” see Swildens: ¶[0048]),

editing the respective log file archive, and

forwarding an update request message to the similar component.

17. Regarding claim 23, Swildens teaches a system comprising a set of internetworked Content Delivery Networks provided with

respective caches (caches “The caching servers host customer content that can be cached and stored, e.g., images, video, text, and/or software” see Swildens: ¶[0010]),

respective Directory Name Service or Domain Name Server (Speedera DNS server “Speedera DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server” see ¶[0011]),

respective content distribution systems to respective clients (Universal Delivery network that delivery content respective to clients “As shown, the system 100 includes a variety of features to defined the Universal Delivery Network (UDN). The UDN has a combined content delivery network 103 and 104 and a global traffic management network 105, which are coupled to each other” see Swildens: ¶[0035]), and

interface components susceptible of each being associated with a respective network in the set of networks and co-operating with at least one similar interface component associated with another network in the set of networks (exchanging service metric information for the DNS servers in the universal delivery network “A ServiceProbe determines service metric information for servers in the UDN and reports them to the DNS server. Service metrics are one of the

decision criteria used by the DNS to make its routing determinations” see Swildens: ¶[0052]), the interface components being configured to collect content-related data related to the association of the contents and the caches that contain them (collecting delivery nodes information by point of presence server for Universal delivery network “Customer.speedera.net is mapped to a collection of delivery nodes represented by point of presence servers, i.e., POPs 103, 104. As merely an example, a method for using such a UDN is provided below” see Swildens: ¶[0038];¶[0056]), at least one of the interface components being configured to transfer routing data obtained by processing the content-related data to the Directory Name Service or Domain Name Server of the respective network so as to update tables of the Directory Name Service or Domain Name Server (periodic checking the caches to see whether a piece of content is update if it the update the caches in the network and update the DNS “The periodic checking is a common feature of caches but if a piece of content is updated, the old content may be invalidated and the new content published to all the caches in the network. The present CDN service makes this purging possible with a cache control utility that allows you to invalidate a single object, a content directory, or an entire site contained in the caches” see Swildens: [0091]) that is different from the interface component so that access by the client of the respective network to the contents of the networks in the set of CDN is implemented through the Directory Name Service or Domain Name Server of the network (Speedera DNS server is the component that able to collecting and processing the requests and direct them to the closest cache which are different from the DNS translation and update the DNS servers “The Speedera DNS server (SPD) is the core component of the Speedera GTM solution and provides load balancing across the servers distributed all over the Internet. The SPD acts as the traffic cop for the entire

network. It handles the DNS requests from the clients, resolving hostnames to IP addresses” and “At various intervals, the ServiceProbe sends an update to all DnsServers in the Speedera Network using the Speedera SERVP protocol and writes the update to a log file” see Swildens: ¶[0214]; ¶[0449]).

18. Regarding claim 24, claim 24 is rejected for the same reason as claim 21 as described hereinabove.

19. Regarding claim 26, Swildens teaches an interface component for implementing Content Delivery Network CDN internetworking, the networks being comprised in a set and being provided with

respective caches,
respective Directory Name Service or Domain Name Servers, and
respective content distribution systems to respective clients, the interface component being susceptible of being associated with a respective network in the set of networks and co-operating with at least one similar interface component associated with another network in the set of networks, the interface component being configured to collect content-related data related to the association of the contents and the caches that contain them, the interface component comprising:

at least one first interface module for exchanging data with the similar component (exchanging service metric information for the servers in the universal delivery network “A ServiceProbe determines service metric information for servers in the UDN and reports them to the DNS server. Service metrics are one of the decision criteria used by the DNS to make its routing determinations” see Swildens: ¶[0052]),

a second interface module for interfacing with the Directory Name Service of the respective network (traffic management system interface with local DNS 113 “The local DNS 113 queries the traffic management system 105 for name and address resolution and receives a reply 125, 127 indicating the optimal customer origin site to retrieve the homepage 131” see Swildens: ¶[0040]), and

a core for collecting and processing the data received by the interface component and routing respective requests, whereby the interface component is susceptible of transferring routing data obtained by processing the content-related data to the Directory Name Service or Domain Name Server of the respective network via the second interface module, the routing data being used to update tables of the Directory Name Service or Domain Name Server that is different from the interface component (Speedera DNS server is the component that able to collecting and processing the requests and direct them to the closest cache which are different from the DNS translation and update the DNS servers “The Speedera DNS server (SPD) is the core component of the Speedera GTM solution and provides load balancing across the servers distributed all over the Internet. The SPD acts as the traffic cop for the entire network. It handles the DNS requests from the clients, resolving hostnames to IP addresses” and “At various intervals, the ServiceProbe sends an update to all DnsServers in the Speedera Network using the Speedera SERVP protocol and writes the update to a log file” see Swildens: ¶[0214]; ¶[0449]).

20. Regarding claim 27, Swildens teaches the interface component defined in claim 26 wherein the interface component is configured to be controlled by a monitoring system and comprises:

a third interface module for retrieving data on the availability of contents from the content distribution system on the respective network (content availability “It contains a mapping of where resources (grouped by hostnames) have been allocated as well as the current state of each resource and their availability to each client” see Swidens: ¶[0047]), and

a fourth interface module for interacting with the monitoring system (log the request and operational data “The DNS server logs both request and operational data to the database for subsequent viewing. Both real-time and historical views are available. The request data allows the administrator and customer to see to the number of requests directed to each POP on a per hostname basis” see Swidens: ¶[0049]).

21. Regarding claim 28, claim 28 is rejected for the same reason as claim 21 as described hereinabove.

22. Regarding claim 32, Swidens teaches the interface component defined in claim 26 wherein each first interface module is configured to exchange information with a similar interface component via an IP transportation protocol such as the TCP protocol (using TCP protocol for exchange information communication “The traffic generally travels through the world wide network of computers using a packetized communication protocol, such as TCP/IP” see Swidens: ¶[0006]).

23. Regarding claim 33, Swidens teaches the interface component defined in claim 26 wherein the core and the first interface module are configured to exchange signals indicating quantities selected from the following group:

URL identifying the content to which the message refers, IP address of the cache that distributes the content, ID of the Content Delivery Network to which the cache belongs, cache

state, content state in the cache, and life time of routing data (URL identified the homepage of the client request whether user changing URL or not, server will redirect the requests “In a specific embodiment, the site can be modified for redirecting a user requests by changing the URL in the HTML. The following example, a request for a picture, shows the original html and the revised html” see Swildens: ¶[0103]).

24. Regarding claim 34, Swildens teaches the interface component defined in claim 27 wherein the fourth interface module is configured to transfer to the core signals indicating quantities from the following group comprising:

IP address of the cache to which the message refers (IP address for the cache in the closet DNS “For persistent hostnames, SPD returns the same IP addresses, for a given client” see Swildens: ¶[0012]),

percentage of CPU used by the cache,

percentage of RAM used by the cache,

percentage of disc used by the cache, and

percentage of users connected in relation to the maximum capacity of the involved cache service (measuring CPU load and memory usage “LOADP provides direct measurement of many system parameters including CPU load, memory usage, swap and disk status, and is used in load balancing decisions” see Swildens: ¶[0053]).

25. Regarding claim 35, Swildens teaches the interface component defined in claim 27 wherein the third interface module is configured to send to the core signals indicating quantities from the following group comprising:

URL identifying the content to which the message refers (IP address for the cache in the closet DNS “For persistent hostnames, SPD returns the same IP addresses, for a given client” see Swildens: ¶[0012]),

list of IP addresses of the caches of the content (list of IP address for a given host in the SPD server “The SPD server maintains a table containing the IP address given out for a given hostname to a client. This table is created dynamically in response to incoming requests and is synchronized across all the SPD servers responsible for a given zone” see Swildens: ¶[0012]),

level of confidence of the content,

level of availability of the content, cache state (content availability and current state “It contains a mapping of where resources (grouped by hostnames) have been allocated as well as the current state of each resource and their availability to each client” see Swildens: ¶[0047]),

life time of routing data (real time statistic and historical data of routing data per user “Both real-time and historical views are available. The request data allows the administrator and customer to see to the number of requests directed to each POP on a per hostname basis” see Swildens: ¶[0049]).

26. Regarding claim 37, Swildens teaches the interface component defined in claim 26 wherein second interface module is configured to communicate with the Directory Name Server to update respective tables on the basis of signals indicating quantities from the following group comprising:

ID of the operation to be carried out on the table of the server, such as addition or deletion, type of register, name of the domain to which the message refers, entire URL of the content to which the message refers, IP address of the best cache to serve the domain, and life

time of the register (the closest caching server serving the appropriated user request "A Speedera DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server. The appropriate caching server is selected by choosing the caching server that is closest to the user, is available, and is the least loaded" see Swildens: ¶[0012]; ¶[0087]).

27. Regarding claim 38, Swildens teaches the interface component defined in claim 26 wherein the core module comprises a memory hosting a data structure containing information on the state of the respective Content Delivery Network and similar internetworking networks (caching system to the distribute content from a original site that is close to a user can be implementing in Universal Delivery Network which that contain more than one Content Delivery network "For standard Web content, we implemented a caching system to distribute Web content from an origin server to a cache server that is close to a user. This means an origin server needs to exist that contains a master copy of the content. If the user has an existing Web site, the existing Web site will be the origin site" and "The UDN can be implemented as a single outsourced solution or service to a customer. When deployed across the WAN, it creates a unified network that provides a universal solution for content routing and high availability delivery" see Swildens: ¶[0080]; Fig.1).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 2446

28. Claims 22, 25, 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swildens et al. (US 2002/0052942 A1) in view of M.Green (Content Internetworking Architectural Overview).

29. Regarding claim 22, Swildens teaches the method in claim 21 as described hereinabove. Swildens fails interface components communicate via a CNAP protocol.

However, M.Green teaches a system for implement internetworking of a set of Content Delivery Networks, the networks in said set being provided with respective caches, respective to Directory Name Service. M.Green further teaches the interface components communicate via a CNAP protocol (A common protocol for the advertisement of content see Page 21 section 4.4.3 Advertising Requirements) in order provide more efficient delivery protocol for the content networks.

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Swildens to include (or to use, etc.) interface components communicate via a CNAP protocol as taught by M.Green in order provide more efficient delivery protocol for the content networks.

30. Regarding claim 25, claim 25 is rejected for the same reason as claim 22 as described hereinabove.

31. Regarding claim 29, claim 29 is rejected for the same reason as claim 22 as described hereinabove.

32. Regarding claim 30, Swildens together with M.Green taught he interface component defined in claim 29 as described hereinabove. Swildens further teaches each first interface module is configured to translate from the CNAP protocol to a format that can be understood by

a core of another interface component (the LATNP protocol implementing message share the common header provided the same standard for other interface to able understand the message “The LATNP protocol implementation is supported using two messages. Both messages share a common header. The header is followed by a variable number of request elements for the Latency Request and by a variable number of latency metric elements for the Latency Metric Message” see Swildens: ¶[0505])

33. Regarding claim 31, Swildens together with M.Green taught he interface component defined in claim 30 as described hereinabove. Swildens further teaches the interface component defined in claim 30 wherein the communication between the first interface module and another first interface module of a similar interface component comprises the transmission of signals indicating quantities from the following group comprising:

ID of the network in which the interface component is associated, IP address of the computer hosting the local interface component (list of IP address for a given host in the SPD server “The SPD server maintains a table containing the IP address given out for a given hostname to a client. This table is created dynamically in response to incoming requests and is synchronized across all the SPD servers responsible for a given zone” see Swildens: ¶[0012]),

ID's of interconnected systems via the interface component and the similar interface component, IP addresses of the remote interface components of the internetworking systems,

level of confidences of the internetworking network connection (different internetworking connection for each site whether is health site or not “The client location is coupled to a server, which is for a specific user. The user can be any Web site or the like that distributes content over the network. As merely an example, the user can be a portal such as

Yahoo! Inc. Alternatively, the user can be an electronic commerce site such as Amazon.com and others. Further, the user can be a health site” see Swildens: ¶[0066]), and

at least one identification of physical characteristics, such as the geographical distance of the connection between the interfacing component and the similar interface component (load balancing will be in the same zone on the different SPD servers “When SPD has to forward the DNS request to servers in another zone, it selects the server with the best (lowest) latency value. This allows the SPD server to dynamically load balance between the SPD servers in the same zone and avoid servers that may be down or are having some other problems” see Swildens: ¶[0014]).

34. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swildens et al. (US 2002/0052942 A1) in view of Bowman-Amuah (US 6,289,382).

35. Regarding claim 36, Swildens teaches the interface component in claim 35 as described hereinabove. Swildens fails to teach quantity identifying the level of confidence of the content is susceptible of assuming distinct levels corresponding to at least one first level of confidence in the group comprising: a first level of confidence indicating that the contents may be exchanged by all networks in the set of networks, and a second level of confidence indicating that the contents may be exchanged on by a selectively determined subset of networks in the set of networks.

However Bowman-Amuah teaches the quantity identifying the level of confidence of the content is susceptible of assuming distinct levels corresponding to at least one first level of confidence in the group comprising: a first level of confidence indicating that the contents may

be exchanged by all networks in the set of networks, and a second level of confidence indicating that the contents may be exchanged on by a selectively determined subset of networks in the set of networks (Three different kind of level security toward security component: High level security is whether the user has fully access to run the application; next level check user has the access to the data; lowest is whether access to the widgets on a window see Bowman-Amuah: col.52 lines 38-45) in order to provide less complex, faster interaction because of the web's level of interaction between clients and servers (see Bowman-Amuah: col.2 lines 18-20).

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Swildens to include (or to use, etc.) a first level of confidence indicating that the contents may be exchanged by all networks in the set of networks, and a second level of confidence indicating that the contents may be exchanged on by a selectively determined subset of networks in the set of networks as taught by Bowman-Amuah in order to provide less complex, faster interaction because of the web's level of interaction between clients and servers (see Bowman-Amuah: col.2 lines 18-20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 25, 2008
GL
Patent Examiner

/Joseph E. Avellino/

Primary Examiner, Art Unit 2446